

GLOBAL CATASTROPHES AND TRENDS: THE NEXT FIFTY YEARS

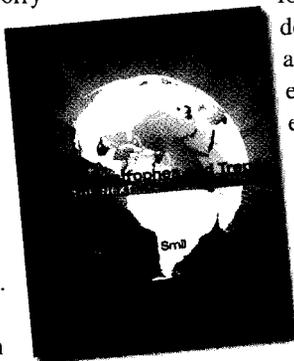
by Vaclav Smil; MIT Press, Cambridge, MA, 2008; 320 pp., \$29.95 hardcover (978-0-262-19586-7)

On my refrigerator is a cartoon of a couple reading a newspaper with the caption, "If you use up your worry today, what will you have tomorrow?" To worry may be distinctively human, but what to worry about is surely determined by a mixture of many things, including genes, culture, current notoriety, and even science. All these factors enter into Vaclav Smil's new book on worrisome discontinuities and trends, but he would think, and I would agree, that for the most part, science should inform our worries.

It is science that he emphasizes in Chapter 1, "How (Not) to Look Ahead," as he distinguishes his volume from Francis Fukuyama's *The End of History and the Last Man* (1992), Paul and Anne Ehrlich's *One with Nineveh* (2004), and the many doom futures, best illustrated by Jared Diamond's *Collapse: How Societies Choose to Fail or Succeed* (2004). But he also rejects the many specific-point, quantitative trend projections for population, economy, environment, and the like as "unrealistically static," and the alternative technique of scenarios as creations by "inventive fabulists." How, then, do we gauge the likelihood of these potentially catastrophic trends? Smil firmly believes "that looking far ahead is done most profitably by looking far back and that this approach works both for natural catastrophes and socio-economic trends." And, he adds, if we are to worry, at least we could focus on those events

and trends that can shape the course of world history over the next 50 years.

He divides these concerns between singular discontinuous events and accumulating trends. For his discontinuous events capable of changing world history, he examines the past history of known catastrophic events, estimating probabilities for asteroids, influenza pandemics, megawars, volcanoes, and tsunamis, while rejecting extremely low-probability events of supernovae or extensive lava effusions. Along the way, he considers plausible catastrophes that have never occurred before, such as nuclear war and abrupt human-induced climate change, as well as specula-



tive surprise catastrophes that seem credible enough to him to mention, such as global cooling or mutant bacteria, viruses, or yeasts. Smil concludes: Surely worry about a nearly certain influenza pandemic over the next 50 years; be somewhat worried about the 20 percent chance of a megawar (on the scale of World Wars I and II); and probably do not worry over a history-changing volcano, tsunami, or asteroid or a singular terrorist event. But worry as well about the plausible catastrophes, and consider that surprises will surely occur.

Under unfolding accumulative trends, Smil sorts out a series of major world trends marked by transitions in population and energy; changes in the regional directions of Europe, Japan, Russia, and China; the growth of Islamic fundamentalism; and, centrally, the United States' decline amid globalization and pervasive inequality. The current global financial crisis only reinforces his analysis. His environmental analysis of worry goes beyond global warming to include water and nitrogen cycles, bugs, bees, biodi-

versity, and the biosphere. On the whole, this section is an assemblage of good trend data, plausible catastrophes, and well-informed speculation.

Smil is a global scientific treasure, living, thinking, and writing in Winnipeg, Canada, and author of 23 other books on China, energy, the environment, food, and biogeochemical cycles—many with the status of "if you want to get started in a subject, begin with this." But like all worriers, professional or otherwise, genes, culture, and current notoriety creep into Smil's scientific discussion. For example, he discounts optimistic European scenarios by substituting his own "perspective offered by the author, a skeptical European who understands the continent's major languages, who has lived and earned money on other continents and who has studied other societies." Realistic or otherwise, if you want to get started on the big worries of the first half of the twenty-first century, begin with this book.

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WATER, PLACE, AND EQUITY

edited by John M. Whiteley, Helen Ingram, and Richard Warren Perry; MIT Press, Cambridge, MA, 2008; 318 pp., \$25.00 paperback (ISBN 978-0-262-73191-1)

Water, Place, and Equity, edited by three political scientists with extensive experience in natural resources management and social justice, explores the role of equity in managing and allocating water resources. The editors argue that water will dominate world resource politics—even more than oil—in the future. In light of water's continued importance, its fair allocation could create a more equitable society; conversely, its mismanagement could have far-reaching negative consequences.